

92372

PATENT 

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re U.S. Patent Application)
Applicant: ANDO et al.)
Serial No.: Unassigned)
Filed: June 23, 2004)
For: METHOD FOR ELIMINATING DEFECTS FROM)
SINGLE CRYSTAL SILICON, AND SINGLE CRYSTAL)
SILICON)

INFORMATION DISCLOSURE STATEMENT

Mail Stop PCT
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313

Sir:

Pursuant to 37 C.F.R. §1.97, a list of documents is disclosed on the attached Form PTO-1449 that may be material to the examination of this application. The cited references are enclosed herewith.

Documents for which the supplied date of publication lists the year of publication without the month were published sufficiently earlier than the effective U.S. filing date and any foreign priority date, so that the particular month of publication is not in issue. Pursuant to §609 of the MPEP, it is understood that the month of publication is not required when the particular month of publication is not in issue.

No inferences should be drawn that the attached list represents a comprehensive investigation, or that any material disclosed is equivalent to the subject invention. In addition, none of the documents that have publication dates prior to the priority date of the above application anticipate the invention in this application.

Applicant also encloses a copy of the PCT Search Report and European patent application.

The cited document(s) disclose numerous specific features. There has been no attempt to list each and every feature disclosed by each document. The Examiner is requested to review the document(s) and determine the extent of the materiality of the document disclosures with respect to the present invention.

The discussion of any art and the citation of any document(s) herein is not to be construed as an admission that the art or document disclosure is necessarily within the invention field of endeavor, that the art or document disclosure is necessarily prior in time to a particular date which may be relevant to the instant patent application, and/or that the art or document disclosure is otherwise necessarily prior art as defined by the patent law with respect to the instant invention and application.

Also, there is reserved the right to later set forth how the instant invention is distinguished over the disclosure of any document or other art, including the disclosures of the art and document(s) recited herein, that may be cited by the Examiner in rejecting a claim in the instant patent application. The recitation herein of the art and document(s) is not to be construed as an assertion that more pertinent art could not possibly be in existence.

Respectfully submitted,



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Dated: June 23, 2004

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Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Application Number	Unassigned
				Filing Date	June 23, 2004
				First Named Inventor	ANDO et al.
				Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	1	of	1	Attorney Docket Number	92372

U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Class	SubClass	Filing Date if appropriate

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ² -Number ³ -Kind Code ⁴ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		JP 07201874	08/04/1995	NEC Corp.		Abstract
		EP 0 889 510	01/07/1999	Adachi et al.		Yes
		JP 09194294	07/29/1997	Sumitomo Sitix Corp.		Abstract
		EP 1 035 235	09/13/2000	Tamatsuka et al.		Yes

OTHER ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
		Adachi, et al.; "Reduction of Grown-In Defects by High Temperature Annealing," <i>Journal of The Electrochemical Society</i> , Vol. 147 (1), pp. 350-353, 2000.	
		Umeno et al.; "Dependence of Grown-In Defect Behavior on Oxygen Concentration in Czochralski Silicon Crystals," <i>Jpn. J. Appl. Phys.</i> , Vol. 38, Pt. 1, No. 10, pp. 5725-5730, 1999.	
		Wijaranakula et al.; "Effect of high-temperature annealing on the dissolution of the D-defects in n-type Czochralski silicon," <i>Appl. Phys. Lett.</i> , Vol. 64 (8), pp. 1030-1032, 21 February 1994.	

Examiner Signature		Date Considered	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST .3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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